



Concentrated Solar Power in the Global Market Place

Facilitating Sustainable Investment Opportunities in Emerging Markets

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The Global Environment Facility (GEF)

Objectives and Mandates:

- World Bank administered Trust Fund
- To finance implementation of international environmental agreements in Developing Countries and Eastern Europe
- Volume \$ 2, 7 Billion for three years
- about 40% of the resources are being allocated for clean energy projects, including CSP, PV and other RET
- Details of GEF's portfolio are available at **www.gefweb.org**



GEF's RET Market Objectives

- To assist market participants and regulators in addressing key market barriers
- To foster dialogues and coalitions among key players interested in specific RET markets
- To facilitate innovation/creative ways and means to forge market activity and growth



Barriers: The “4P” Challenge

- **P**rice
- **P**urchasing Power
- **P**roduct Marketing
- **P**laying Field



Experience & Lessons:

- Isolated strategies that address one barrier alone are not promising,
- Efforts led by one player alone tend to be insignificant from a broader market development perspective



1. Price:

- Capital Costs are a function of installation price & perceived operating risks
- Installation price can be brought down through scale
- Required are market aggregation/ procurement coalitions
- Power market restructuring/ emergence of merchant plants enhances operating risks
- Innovative risk management vehicles are required to reduce capital costs



2. Lack of Purchasing Power:

- ? Privatization of utilities is still in its early stages, local utilities tend to be undercapitalised,
- ? Independent power producers are just emerging; they have difficulties to access venture capital due to incalculable market risks,
- ? Energy markets seem to be not yet sufficiently developed to trigger alliances among key players in emerging market environments,
- ? While it is relatively easy to obtain to RE subsidies, it appears to be almost impossible to access venture capital for RET investments in non OECD countries,
- ? Development of customized financing instruments is required to enhance access to debt and equity



3. Product Marketing

- **Information about newly emerging Technology Alternatives is insufficient**
- **Difficult access to dispatch models that allow easy modeling of RET integration into GRIDs**
- **Lack of information leads to exaggerated risk perceptions and hesitation to “test” the technology in feasibility studies**



4. Leveling the Playing Field:

- ? Government efforts to level the playing field for RE are still in their infancy.
- ? IPP and PPA frameworks are non-existent or not credible
- ? Countries outside the sunbelt cultivate small “premium markets” that divert industry interest away from more promising opportunities in countries that are favoured by the sun.
- ? Market activity triggered by largely uncoordinated PV subsidy programs in OECD countries distort the market place and is not sufficient to prompt investments in large scale manufacturing facilities.
- ? Innovative risk sharing and risk distribution approaches need to replace subsidies



Proposed Way Forward:

- **Development of an integrated approach that aims to engage key players interested in the market**
- **Exploration of a Global Market Development Coalition that would enable integrated efforts to systematically address identified barriers.**
- **Substitution of subsidies by risk sharing incentives at all levels**